

COUNTY BOROUGH OF DEVONPORT.

ANNUAL REPORT

OF THE

Medical Officer of Health

AND

Sanitary Inspector's Report

For the Year 1899.

Devonport (Urban) Sanitary Authority.

DEVONPORT:

Josiah Clark & Son, Printers, Cumberland Street & Chapel Street.
1900.

TABLE A.

TABLE OF DEATHS during the year 1899, in the Devonport Urban District, classified according to Diseases, Ages and Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities. (a)	Mortality from all causes, at subjoined ages.							(i) Under 5 5 upwds. Under 5 5 upwds. Under 5 5 upwds. Under 5 5 upwds. Under 5 5 upwds. Under 5 5 upwds.	Mortality from subjoined causes, distinguishing Deaths of Children under 5 years of age.															
	At all ages.	Under 1 year.	(c) 1 and under 5.	(d) 5 and under 15.	(e) 15 and under 25.	(f) 25 and under 65.	(g) 65 and upwards.		Diphtheria.	Membranous Croup.	Enteric or Typhoid.	Pyæmia.	Puerperal.	Erysipelas.	Measles.	Whooping Cough.	Rheumatic Fever.	Phtisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease	Influenza.	Injuries.	All other Diseases.	Total.
(a) Tamar	278	76	23	5	10	62	98			1		1	1		4	1	1	24	23	23		6	70	99
(b) S. Aubyn	263	72	24	6	8	69	83	2		1		1	1		5			25	24	28	5		65	96
(c) Morice	193	43	28	9	12	55	46	2	2	1				1	3			12	20			1	49	71
(d) Stoke	459	121	33	12	27	119	152			6	1		1		5	1	2	31	2	38	1		102	154
															2	2	33	47			8	12	160	310
Including Roy. Albert Hospital — in (c).	29	1	3		4	21		2		1								1				8	2	4
Military Hospital (c) }	15				8	7				2							1	6	1		1		4	15
Workhouse	40	3			2	16	19											6					3	37
Borough Hospital }	3				1	2				2			1											3
	1193	312	108	32	57	305	379	2	2	9	1	2	3	1	17	1	3	5	92	2	1	1	186	420
								3							3			89	99	109	15	43	386	773

TABLE B.

TABLE OF POPULATION, BIRTHS and of NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1899, in the County Borough of Devonport Urban Sanitary District; classified according to Diseases, Ages and Localities.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.				Number of such cases removed from their Homes in the several Localities for Treatment in Isolation Hospital.				
	Last Census.	Estimated to middle of 1899.			Scarlatina.	Diphtheria.	Membranous Croup.	Enteric or Typhoid Fever.	Erysipelas.	Scarlatina.	Diphtheria.	Enteric or Typhoid Fever.	Erysipelas.
(a)	(b)	(c)	(d)	(e)									
Tamar District ...	13477	16179	480	Under 5 5 upwards.	18 26	2		5	1 19	6 10	2	1	3
St. Aubyn ...	15976	16176	463	Under 5 5 upwards.	9 17	1 1		8	11	8 13	.	3	1
Morice ...	7262	7281	214	Under 5 5 upwards.	5 15	1 2	1 1	1 5	2	2 7			
Stoke ...	13837	19631	761	Under 5 5 upwards.	25 86	4 8		1 10	38	16 41	3		3
On Board Ship, R.N.	4361	6856											
Totals ...	54913	66131	1918	Under 5 5 upwards.	55 144	6 13	1 1	2 28	1 70	32 71	5	4	7

TABLE C.

COMPARATIVE TABLE OF BIRTHS AND DEATHS FOR THE PAST 10 YEARS.

Year.	Births.	Deaths.	Natural Increase.	Deaths from Zymotic Diseases.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Enteric Fever.	Infantile Diarrhoea.	Tubercular Diseases.	Respiratory Diseases.	Rheumatic Diseases.	Death rate per 1000.	Birth rate per 1000.	Zymotic Death Rate.	Deaths under 5 years.	Death Rate per 1000 births. Infants under 1 year.
1899	1918	1193	725	38	1	0	5	21	9	86	154	206	4	18.3	29.5	0.5	420	162.6
1898	1663	949	714	73	35	4	7	15	12	—	136	145	2	14.6	25.5	1.1	341	140.7
7	1575	876	700	52	2	4	12	24	8	—	109	128	—	14.0	26.2	0.8	309	149.2
6	1595	1033	562	104	31	3	22	7	10	27	132	213	2	17.5	27.0	1.7	365	136.6
5	1509	1003	506	51	26	1	7	3	11	3	123	206	6	18.5	27.9	0.9	301	
4	1466	920	546	79	19	9	6	31	9	4	141	161	1	17.0	27.1	1.4	303	
3	1620	985	645	55	4	11	9	26	5	9	120	222	7	18.2	30.0	1.0	367	
2	1438	995	443	52	28	9	9	—	6	—	123	229	3	18.2	26.6	0.9	344	
1	1570	1080	490	63	10	5	4	40	4	—	134	230	4	20.0	29.0	1.0	358	
90	1570	992	578	89	32	24	10	15	8	1	140	190	4	18.5	28.0	1.6	343	
Average for 10 years	1592	1002	590	69	18	7	9	16	8	13	131	193	3	15.4	24.4	1.0	345	

TABLE D.

RETURN of the number of cases of Infectious Disease reported to the Medical Officer of Health during the year 1899 and of deaths from the diseases notified.

	Cases notified in			Deaths registered in		
	1897	1898	1899	1897	1898	1899
Small Pox ...	3	—	—	—	—	—
Scarlet Fever ...	82	144	201	4	3	0
Diphtheria ...	35	15	19	13	5	5
Membranous Croup ...	2	2	2	—	2	1
Typhus Fever ...	—	—	—	—	—	—
Enteric or Typhoid Fever ...	30	39	30	8	12	9
Continued Fever ...	—	—	—	—	—	—
Relapsing Fever ...	—	—	—	—	—	—
Puerperal Fever ...	1	6	2	—	3	2
Cholera ...	—	—	—	—	—	—
Erysipelas ...	42	54	71	2	0	3

TABLE**CLIMATOLOGICAL OBSERVATIONS.**

1899	Temperature—Fahrenheit							Barom- (Sea	
	Mean Temp. Dry Bulb	Mean Temp. Wet Bulb	Max. Temp.	Min. Temp.	Mean Temp.	Ditto for like month, 1898	Mean range daily	Monthly means corrected	Barometer highest
Jan.	44·54	40·96	54·0	31·0	42·88	46·31	8·61	29·97	30·72
Feb.	43·17	40·06	56·0	28·0	44·39	43·62	8·64	29·93	30·87
Mar.	41·74	38·82	64·0	26·0	45·06	41·19	15·16	30·26	30·87
April	47·00	43·60	69·0	32·0	51·76	52·96	16·20	30·02	30·48
May	52·48	50·48	74·0	42·0	57·41	57·61	9·45	30·20	30·69
June	62·70	61·46	82·0	49·0	64·28	63·40	21·83	30·27	30·62
July	63·35	60·77	85·0	53·0	68·30	67·51	19·70	30·32	30·63
Aug.	65·58	61·74	83·0	52·0	68·24	65·93	16·29	30·32	30·62
Sept.	59·26	55·26	80·0	58·0	61·50	62·45	15·86	30·14	30·50
Oct.	52·61	49·06	66·0	32·0	53·53	57·48	12·09	30·21	30·54
Nov.	50·26	44·53	61·0	36·0	49·40	47·33	7·80	30·34	30·78
Dec.	42·87	38·90	57·0	26·0	41·38	47·56	8·32	29·97	30·60

E.

READINGS TAKEN DAILY AT 9 A.M.

Barometer lowest level)	Rainfall							Wind
	Total during month	Ditto for like month, 1898	Total rainfall from 1st Jan. 1899	Ditto for like month, 1898	Greatest in one day	Days in which 0·01 or more fell	Total during 1898	Prevailing Direction
	in.							
29·15	5·76	1·00	5·76	1·00	1·00	21	26·83	N.W. S.W.
29·27	3·65	1·38	9·41	2·38	0·64	12	—	S. W. & E.
29·20	0·96	1·35	10·37	3·73	0·35	10	—	S.W. to N.W.
29·08	3·31	1·15	13·68	4·86	0·70	20	—	N.W. to S.W.
29·64	2·37	4·21	16·05	9·07	0·58	14	—	Variable
29·44	1·24	2·05	17·29	11·12	0·56	6	—	„
29·84	1·02	0·31	18·31	11·43	0·28	11	—	S.W. to N.
30·07	1·33	2·23	19·64	13·66	0·55	7	—	S.E.
29·58	1·91	1·07	21·55	14·73	0·45	17	—	N.W.
29·48	3·04	4·91	24·59	19·64	1·35	11	—	N.W. S.W.
29·58	2·89	2·95	27·48	22·59	1·15	8	—	E.
28·40	3·15	4·29	30·63	26·88	0·80	20	—	Variable

ANNUAL REPORT FOR 1899.

THE Death Rate for 1899, as will be seen from Table A is the highest but two for the last ten years, being 18·3 per 1000 ; in 1891 it was 20 ; in 1890 and 1895, 18·5 ; the total number of deaths from all causes was 1193 ; of births the total was 1918, giving a natural increase of 725.

The deaths from Zymotic diseases were 38, by far the lowest for ten years, the average being 69.

Measles claimed 1—average 18.

Scarlatina none—average 7.

Diphtheria 5—average 9.

Whooping Cough 21—average 16.

Enteric Fever 9—average 8.

Infantile Diarrhœa 86—average 13.

Tubucular diseases 154—average 131.

Respiratory diseases 206—average 193.

The average death rate for ten years was 15·4.

The birth rate was 29·5—average 24·4.

The zymotic death rate ·5—average 1.

Deaths under 5 years 420—average 345.

The death rate per 1000 births was 162·6.

The increase of death rate was greatly due to an excess of Infantile Intestinal disorders prevalent in the summer months ; there is always a prevalence of such at these times, due in great measure to climatic conditions, but also largely influenced by unfavourable surroundings, improper clothing, carelessness, and usually artificial feeding.

In order to diminish, if possible, the deaths from this cause, copies of simple rules of diet and general management were printed for distribution ; it is much to be feared that improper food, especially *white bread* and *tea* is responsible for the terrible decay of the teeth which characterizes this generation. It is quite a rarity to see a young man or woman with sound teeth, it bids fair to become a national evil and cause in time a deterioration of the race, since bad teeth lead to indigestion, and this in time to loss of physical and moral well being and a craving for unwholesome stimulation, which a life in a town still greater

encourages. It is most important that the seeds of these bad habits should not be sown in early life, as they too often are.

Year	Scarlatina	Diphtheria	Typhoid	Erysipelas	Puerperal	Small Pox
1890	275	7	21	31	—	—
1891	94	6	18	30	1	—
1892	187	20	9	48	4	12
1893	232	37	47	64	3	5
1894	118	16	31	43	1	16
1895	63	20	43	40	7	—
1896	48	34	33	43	4	2
1897	82	35	30	40	1	3
1898	139	15	40	54	6	—
1899	201	19	30	69	2	—
The Notification Act came into force on 20th November, 1889. From that date till 31st Dec. of same year the cases notified were:—						
1889 (part)	148	—	3	5	—	—

The calculations are based on an estimated population of 66,131. It has been difficult to achieve complete accuracy in this particular owing to the shifting character of the population and the great influx dependant on extensive government works, and the sudden springing up of many houses on hitherto unoccupied lands, both in the old Borough as well as in the added area. The Census next year will set the seal of accuracy more surely for future guidance and calculation.

Month	Scarlatina	Diphtheria and Membranous Croup	Enteric Fever	Erysipelas	Puerperal Fever
January	26	1	5	10	—
February	35	2	2	6	—
March	36	3	3	1	—
April	19	1	2	6	—
May	11	—	2	6	—
June	17	1	2	6	—
July	17	2	—	3	—
August	11	3	5	6	1
Sept.	9	—	4	4	
October	7	1	3	8	
Nov.	4	1	1	8	1
Dec.	9	5	1	5	
Totals	201	19	30	71	2

From this Table it will be seen that of *Scarlatina* the relative scale of cases was March 36, Feb. 35, Jan. 26, April 19, June and July 17, May 11, Sept. and Dec. 9, Oct. 7, Nov. 4.

Of *Diphtheria*, Dec. 5 cases, Jan., June, Oct., Nov. 1, so that the lowest of *Scarlatina* was the highest of *Diphtheria* as to months of the year ; there were 5 deaths from this.

Enteric Fever prevailed fairly evenly, the highest number 5 being in August and strange to say January, the cases occurred in all months but July in numbers 1 2 3 and 4 per month.

Erysipelas prevailed all the year, highest in January 10, October and November 8.

The only point clearly deducible from this table is the fact that *Scarlatina* was a disorder of the winter months. The figures of the other disorders are too mixed for any deduction to be possible from them.

Of the 80 cases of *Enteric Fever* notified 2 were doubtful, one was a soldier ; 8 drains were found defective, 2 wells polluted. There were 9 deaths from this disease or 30 per cent., 3 per 1000 cases ; the deaths from *Diphtheria* being 26 per cent. or 2·6 per 1000 cases.

Isolation Hospital. I regret to have to report that the question of providing fit accommodation for isolating infectious cases has not, during the past twelve months, advanced beyond the stage of discussion. This is much to be regretted, as the provision is quite inadequate as regards construction of buildings, and number of beds. Only with great inconvenience can more than 22 beds be made up. There are only 4 wards, which are not enough to make room for the proper separation of sexes in the four diseases often in the building at once.

Scarlatina, Diphtheria, Enteric Fever and Measles or Erysipelas. The W.C.'s are too few and badly placed. Enteric cases are lodged under the same roof as Scatlatina, separated only by sliding doors ; in emergency some cases have to be put in a small room next the kitchen in the administration block.

The only thing that can be said for it is that it is better than nothing ; and it has done good in the past ; indeed without hospitals notification is a farce. 119 cases have been admitted during the past year. 105 Scarlatina, 5 Diphtheria, 3 Enteric Fever, 8 Erysipelas.

Of the 201 cases of Scarlatina notified it will be seen more than half were sent to hospital, and no death occurred from this disease, this may be partly due to its being of a milder type than sometimes, but something may also be claimed with justice for Notification, Isolation and Disinfection.

It is to be noted that attention is necessary to this hospital question on the general grounds of unfitness and faulty construction which sometimes causes great difficulty in properly arranging cases, and not merely because the present makeshift is for 22 beds instead of at

least 66 which should be the number provided at the rate of one per 1000 inhabitants, which is Local Government Board Scale.

The arrest of Tuberculosis has occupied the attention of sanitarians throughout the kingdom during the past year. It is a question how far the compulsory notification of Phthisis is practicable or advisable, at least at present. As the greatest need for precautions exists most in those houses where it can least easily be carried out, it is useless to try to cope with the disease in the houses of the poor; their habits, surroundings, and the bad conditions of their housing all go to show that the only way to treat their cases is to remove them to more favorable conditions. favorable not only for the treatment of this disease in the interests of the patient, but for the checking its spread in the interest of their friends.

For this purpose Special Hospitals or Cottages in dry bracing sheltered spots are the only remedy worth the name, though good may be done by spreading information in the houses even of the poor as to the precautions they should take for safety.

In Germany and France steps are being taken to prevent that nauseating habit of indiscriminate spitting so common in towns. That this is not an unnecessary precaution may be judged from the fact that out of 10 examinations of sputa taken from first-class railway carriages 8 were found to be infested with the bacillus of Tuberculosis.

It should be noted that it is considered to be mainly by means of this sputum, when dry and powdery, that tubercle is communicated.

The measures of precaution I have taken consist in sending copies of simple rules to each medical man for distribution among their consumptive patients and also the disinfection of all premises where a death from this disease has been reported to have occurred.

No satisfactory solution of the need for *Mortuary* provision has yet taken practical shape. Negotiations for a site which possesses many advantages have fallen through on a question of price.

The present arrangements are most inadequate and unseemly, and although it is possible to improve them and to keep to the present situation, no plan can have my approval

which does not involve its removal. A Mortuary should be detached from all other buildings and have plenty of space inside and around it. It should be of one story with light and ventilation from above. The present place fulfils none of these conditions, nor can it be made to, being under the Guildhall, badly lit on one side only, difficult of ventilation and closely mixed up with another public office, that for weights and measures.

A Mortuary to fulfil its objects thoroughly should not only be a depot for bodies found dead and such as require post mortem examination for inquest purposes, but should be so fitted and placed as to be a resting place for such dead bodies as are at present an unwholesome inconvenience to the crowded tenements in which so many of them are now forced to lie previous to burial.

This part of the question has been met in some places, notably by the clergy, by the provision of seemly crypts, whose religious aspect has been an encouragement to poor persons to deposit their dead therein in the interval between death and burial.

Besides this, all plans for mortuaries now include a Coroner's Court, a great convenience for the viewing of the bodies necessary in all inquests.

It is to be regretted that sufficient attention has not yet been paid to the provision of *play grounds* for children and especially young boys. It seems strange that the School Boards, which make such full arrangements for the cultivation of the minds of the children under their charge, should so entirely lose sight of the necessity of exercising their bodies. In Germany, I believe, gymnastics enter largely into the course of instruction provided by the State. There is not a single *gymnasium* in all the schools of the Borough ; nor is there any provision for cleansing the bodies of the very large numbers of men whose work is of a character to require that this should be done systematically and frequently, whose conditions of living makes such a duty impossible of fulfilment there, there is not a single public bath in the whole of Devonport, except the few intended principally for sailors in Miss Weston's Rests. It is true there is the sea in which bathing can be had, but that is necessarily confined to the warmer months of the year. A movement was made

in this direction in the year of the Jubilee, but the idea seems to have dropped out of all recollection.

Houses have been built in all directions and in great numbers. It is much to be wished that it could be said that they have in any way adequately solved the question of the housing of the working classes, but when the best outcome of all this building is a rent of £28 for 4 rooms and a kitchen, this can hardly be said to be the case.

The only dwellings which in any way meet the want, those of the Dockyard Section at Ford have for some reason received a sudden check which is much to be deplored. Those already built are to a great extent an object lesson as regards convenience and cheapness.

It is unfortunate that the *Destructor* erected as an experiment at Pottery Quay has been a failure and has been removed. The Town badly needs some means of dealing with its refuse. For many reasons a Destructor is an unscientific method of getting rid of a difficulty. There is no doubt that a valuable fertilizing agent is thus wasted. In Manchester the Corporation

have acquired a large tract of waste land and make a profit out of it by utilizing their house refuse on it. This is not open to the objections of sewage farms which do not succeed owing to the large quantity of water which has to be dealt with ; in the case of house refuse it is all dry and so easily utilized for manure.

Of course this main object is to get the refuse away from being a nuisance and injurious to health, and if no other means can be used it must be wasted in a Destructor which should be provided as soon as possible.

The present plan of depositing refuse near a landing stage much used by excursionists and occasionally burning it in the open is the cause of serious annoyance to passengers and the locality generally, and is calculated to enhance neither the health and comfort of the inhabitants nor the popularity of this Borough as an excursion centre.

The *Public Slaughter Houses* have been properly inspected weekly and have always appeared well kept on my visits ; the only objection to them is of course their position in the lowest geographical part of the town, closely hemmed in by houses which are thickly tenanted.

A *Public Disinfector* is much needed and has been the subject of consideration and discussion. No town can be considered adequately equipped to stamp out infectious disease which has not a Distructor. There are several kinds in the market, the obvious merits of which are under enquiry. This would be available for public use and would be most valuable, as the process of steaming has been found to have more power of destroying germs than the emitting of sulphurous gas into a room in which beds, bedding, etc., are exposed. The power of penetration of such things as mattresses for instance is far greater in the steam disinfector than in any other method. There should be no more delay in providing this most necessary adjunct, the cost of which is trifling compared with its usefulness—not only for employment at the hospital when it is much needed, but for general public use.

The number of *New Houses* springing up year by year (477 last year) necessitates great expenditure in Drainage schemes. Notably is this the case in providing for the new districts of the added area of St. Budeaux and Penny-cross. These will all have to be dealt with on a septic system to provide a clear effluent.

This seems by general consent to be the best method of treating sewage so as to avoid sludge. Whilst it has passed the experimental stage and is entered on the practical, it can perhaps hardly be said that we are yet acquainted with the working of all the details especially as regards choice of site for the tanks and filter beds. It is quite conceivable that under unfavourable conditions such as constricted area, absence of free ventilation, undue aggregation, etc., the system might become a nuisance, if not positively injurious to health. This would not be so much to the discredit of the system as to the conditions of its application. This point should therefore receive careful consideration in any application of the principle to a locality.

The problem to solve at Camel's Head is not an easy one, as the needs of rapidly growing localities, St. Budeaux, Pennycross, and the district north of Renown Street, all have to be met in a way that shall not be a menace to the health of the people who will inhabit the houses soon to cover the greater part of this locality which will naturally grow in this direction.

There can be no question that the septic system, as much as if not more than any other,

requires for its most favourable conditions that it shall be located as far as possible from dwellings and with free access of air.

The *Water Supply* has continued to be efficient as regards quality and quantity. The Leat Committee on their annual inspection were quite satisfied with the condition of the leat generally and the provisions made for its purification of such extraneous matters as it may have collected in its course, in the filter beds at Crown Hill.

A new large storage reservoir, covered in by masonry has been built at Beaconsfield and will add materially to the efficient supply of the Town in the drier seasons.

It may be interesting to advert briefly to the general features of this water supply which have been kindly supplied me by Mr. Francis, the Company's Engineer.

The collecting area which is free from cultivation consists of 4716 acres and runs into the streams called the Dart, Cowsic, and Black-abrook, the two latter being tributaries of the former. The geological formation of the land is rough moorland granite as a subsoil with peat

above ; for this reason any extensive scheme for raising peat on Dartmoor would be a distinct injury to the water supply of the towns. At present the peat acts as a sponge and retains the rain which forms into rivulets when it is saturated, the peat thus acting as a storage of water. If this were stripped off the granite subsoil the rain would at once flow away into the rivers and in time of drought there would be no reserve on the land.

The filter beds are within 3 miles of the Town, the water from them is conveyed in iron pipes, the supply is constant, the average 28 to 30 gallons per head of population, calculated on domestic supply 19 gallons, trade wants 11 gallons.

There has been no change in the supply since 20 years ago, when filtration was first adopted, there being none before.

The hardness is from 1 to $1\frac{1}{2}$ degrees only.

Table of ratio of Deaths from Enteric Fever as compared with population based on number of houses supplied with water :—

Year		Estimated Population	Deaths from Enteric Fever
Census	1880	48,000	10
	1881	49,000	7
	1882	49,530	8
	1883	50,045	4
	1884	50,575	10
	1885	51,110	15
	1886	51,651	8
	1887	52,195	8
	1888	52,749	4
	1889	53,306	5
Census	1890	53,869	8
	1891	54,437	4
	1892	55,011	6
	1893	55,591	5
	1894	56,177	9
	1895	56,769	11
	1896	57,365	10
	1897	58,043	8
	1898	61,153	12
	1899	61,953	9

The deaths from *Infantile Diarrhœa* require notice as they were somewhat excessive. This is a disorder to which Infants are liable, often as a direct result of the irritation caused by dentition ; for this cause deaths may be expected to occur more or less all the year round. But it will be seen that there was an excessive

prevalence in certain months, notably August, as this month shows the highest mean temperature for the year, 68·24 (see Table E) with a maximum of 83, it is reasonable to attribute much of this disorder to climatic causes. Probably improper feeding is a predisposing cause, with teething and defective hygeiuc conditions in the surroundings and carelessness in the way of clothing and exposure, resulting in chills of the body surface.

Improvement of the homes and better knowledge of the rules for feeding is required to meet these contingencies and enable the sensitive weakly age to resist the devitalizing effect of unusual heat natural to the few summer weeks of our climate.

In the various Wards the numbers so affected during the whole year were: Deaths under 5 years for Diarrhœa—

Popula- tion Esti- mated	District	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
16,179—	Tamar	0	1	0	1	1	0	3	9	4	2	1	0	= 22
16,176—	St. Aubyn	0	1	0	0	0	0	0	11	6	0	1	1	= 20
7,281—	Morice	0	0	1	0	1	0	1	9	0	0	1	0	= 13
19,639—	Stoke	0	0	1	0	2	2	1	31	9	1	2	0	= 48

Total under 5 years 103

This gives deaths per 1,000 living—Tamar, 1·3; St. Aubyn, 1·2; Morice, 1·7; Stoke, 2·4.

Special attention has been paid to *Cellar and Dwellings* of which there are several in the Town ; some the creation of the Corporation in those cases where open areas have been abolished to increase the space for foot-passengers, a course the wisdom of which is more than doubtful, as thereby the amount of air and light is diminished to an extent which is incompatible with health ; and public convenience should never be purchased at the expense of an interference with the sanitary welfare of individuals. As in the cases inspected the conditions as to height of ceiling above outside road, size of area space in front of window, etc., were not found to exist or be possible, the evil has been modified by persuading the tenants to give up their use for sleeping purposes, in the few instances in which this use was made of them ; the rest were considered to be ‘kitchens,’ but were actually often living-rooms, and as such most unsuitable for young life especially. Of course no more will be allowed to be built, and it is hoped that the above will be cured by a better provision of housing in the near future. At present this is so far below the needs and rents are so dear that many persons of small means have no option but to be content with such accommodation as they can get at a rent which they can pay, even

although it be in a cellar. On this account I have hesitated to take any steps which might seem a hardship to those concerned. All the same it is quite true that no such thing should be possible as a family living underground.

The state of the roads outside the lines still leaves much to be desired. It would seem that there are not enough *Sweepers*. Efficient *sweeping* is of more value than *watering*; indeed without the one the other is useless and worse, for the effect of watering an unswept road is to distribute the dirt lying in small heaps evenly over the whole surface, that is as much of it as does not get mixed by the streams of water into the street gullies, together with the waste paper which collects in great quantity in the roads. The result is that when the water spread on the surface has evaporated, as it very soon does, the disintegrated masses of dirt are more readily blown about than they were before this washing when they were in detached heaps.

It must be remembered that the object of street-watering is not to cool the air or even to lay the dust, provided this is innocuous; so that the present plan is really wasteful as the effects are very temporary and the last evil

worse than the first. On the Continent water carts are not used ; the plan adopted being to have the roads carefully swept by one set of men, each heap at once transferred to a cart, and then each section watered from the nearest hydrant by a sort of garden hose. This is far more efficient in every way. The result aimed at is more nearly reached, *i.e.*, purity of air, and at a less expenditure of water, besides the keeping the gullies clear.

All this should be done at an early hour, as indeed the whole *Scavenging* service. It is unseemly and unwholesome to have carts full of fetid rubbish mixed up with the life and business of a Town at its busiest time.

VACCINATION.

The period of doubt and inactivity which existed during the sitting of the Royal Commission has now passed away and the result of an experiment which many were found to condemn has been as gratifying as it was unexpected. During this period of suspense Public Vaccination has fallen to a very low ebb,

and since the alteration in the law very few children were brought to the station to be done ; but in most cases the provisions for vaccinating at their homes has been popular, and but few objections are now met with. The arrears which were considerable are being made up by degrees, and the normal number will soon be reached. The amount of arrears may be judged from the fact that out of 1025 children born, 524 were returned vaccinated on 31st December last whilst 282 remained unvaccinated, the total being made up of deaths 119, postponed 47, removed 7, gone away (address not known) 86, insusceptible 8. There were only 2 conscientious objections out of the whole number.

This result quite gets rid of the idea of a widespread opposition to the practice of the operation ; but there is no doubt that the unexpected success of the new act is largely owing to the systematic use of glycerinated lymph. This removes from the parents the fear of contamination which was considered to attach to the use of humanized lymph, although with ordinary care such a fear was baseless ; still sentiment is all-powerful and must not be disregarded.

In 1898 half a million of children were vaccinated throughout England. In 1899 the total was 669,349, whilst only 32,357 were exempted. This gives an increase of nearly 170,000 cases in twelve months, and is an evidence of the approval by the public of the revised measures taken for the protection of the children from a fearful scourge.

*List shewing number of Houses passed from
1st January to 31st December, 1899.*

Names of Streets				No. of Houses passed	Remarks
Admiralty Street	...	...	...	9	
Avondale Terrace	...	...	...	7	
Albert Road	...	...	...	3	
Cothele Terrace	...	...	...	3	
Duckworth Street	...	...	...	6	
Fleet Street	...	...	...	18	
Goschen Street	...	...	...	11	
Hamilton Street	...	...	...	9	
Holdsworth Street	...	...	...	13	
Johnston Terrace	...	...	...	3	
Julian Place	...	...	...	3	
Nepean Street	...	...	...	13	
Ocean Street	...	...	...	2	
Pasley Street	...	...	...	3	
Raynham Villas	...	...	...	1	
Stuart Road	...	...	...	1	
St. Vincent Street	...	...	...	4	
Stanley Street	...	...	...	1	
St. George's Terrace	...	...	...	17	
Renown Street	...	...	...	6	
Packington Street	...	...	...	7	
Victory Street	...	...	...	76	
Vanguard Terrace	...	...	...	6	
Wake Street	...	...	...	1	
Carried over				233	

Names of Streets				No. of Houses passed	Remarks
Brought over ...				233	All Freehold
KEYHAM BARTON ESTATE.					
Beatrice Avenue	33	On the Keyham Borton Estate
Barton Avenue	...	...	...	23
College Road	...	...	...	11
Cotehele Avenue	...	...	...	16
Kensington Terrace	...	...	...	8
Maristow Avenue	...	...	...	10
Station Road	...	...	...	9
Townshend Avenue	...	...	...	29
Warleigh Avenue	...	...	...	22
York Terrace	7	
ST. BUDEAUX.					
Bridwell Terrace	17	Added Areas
Buckingham Place	...	...	...	2
Carlton Terrace	...	...	...	9
Camel's Head	...	...	...	25
Kathelaine Terrace	...	...	...	4
Lynher Terrace	...	...	...	2
Morris Park Terrace	...	...	...	3
Tresuldon Road	...	...	...	2
Victoria Terrace	...	...	...	9
West Park Terrace	3	
Total	477	

H. J. S. WORTH,

Inspector of Buildings,

20th July, 1900.

Sanitary Inspector's Report.

HEALTH OFFICE,
DEVONPORT,

GENTLEMEN,

THE SANITARY COMMITTEE,

In submitting my Annual Report for the year 1899, I beg to inform you that 4,956 houses have been inspected (this includes 800 inspections in the Added Areas), 2,200 reinspected with the result that 2,011 sanitary amendments have been effected.

The inclusion of St. Budeaux and Pennycross has greatly increased our work ; during the year, the whole of the houses on the Montpellier Estate have been put in thorough repair under our supervision, water closets with flushing appliances have been fixed in lieu of pails, drains relaid, floors ventilated, courtyards paved in cement and the houses thoroughly cleansed and made habitable.

St. Budeaux and Pennycross are also responsible for a large number of extra Cowsheds

most of which I found on inspection did not in any way conform with the regulations as regards paving, drainage, and ventilation, but however, with the help of the landowners a number of those have been paved, drained and cleansed, and are now quite equal to any I have in the Borough.

Table shewing Sanitary Amendments made and General Nuisances abated during the year 1899 :—

No. of New Drains laid	226
„ Pipe „ repaired ...	187
„ „ „ intercepted ...	245
„ „ „ ventilated ...	46
„ Choked drains cleared ...	157
„ W. C's. repaired including Pans, Flooring, &c. ... }	243
„ W. C's. flushed	112
„ Courtyards repaired ...	271
„ Houses cleansed and lime- washed... .. }	184
„ Houses repaired	119
„ Refuse Receptacles provided	175
„ Shutes repaired	31
„ Cellar coverings repaired	15
„ Legal Notices served 298 }	523
„ Informal 225 }	

Total number of Amendments made 2011

SMOKE TESTS APPLIED.

Number of Tests after Infectious Diseases ...	47
„ „ before and after trades- men and from application ... }	362
<hr/>	
Total number of Tests ...	409

INFECTIOUS DISEASES.

The work under the Infectious Diseases Notification Act and the Infectious Diseases Prevention Act has been during the year considerably heavier, the total number of cases reported being 327, whereas last year the total number of cases reported were 255 being an increase for the year of 71 cases.

Total number of cases reported ...	327
„ removed to hospital ...	119
„ Houses disinfected ...	405
„ Notices sent te Schools, } Employers, &c. ... }	370
„ Drains tested ...	47
„ Visits made under these } Acts ... }	858

SLAUGHTER HOUSES.

The Slaughter Houses in the Borough have been regularly inspected and kept in good condition. Two of the worst situated houses have been closed—one in South Street and one in Barrack Street—leaving 5 in Barrack Street, 1 in Cross Street, 2 in Sydney Street, 1 in Granby Street, 2 at Morice Town, and 1 at Boldventure.

Total number on Register...	...	...	15
„ complaints	...	...	2
„ Notices served	...	...	2
„ visits during year	...	...	52
„ closed	...	...	2

OFFENSIVE TRADES.

The premises in which these businesses are carried on have been regularly inspected and kept clean. No complaints of either of them have been received during the year.

The Food and Drugs Commitee.

GENTLEMEN,

I beg to inform you that during the year 56 samples of various kinds were obtained and submitted for analysis with the result that the whole were found to be genuine.

The Diseases of Animals Committee.

COWSHEDS.

There are 73 Cowsheds within the Borough. 31 of those are in St. Budeaux and Pennycross district.

Of the 31 very few of them in any way conformed with the regulations as regards paving, drainage, ventilation, and cubic space, but during the year 18 were paved and drained and put in proper repair.

The sheds within the old district have been from time to time inspected and kept clean and in good condition.

DAIRIES AND MILKSHOPS.

The Dairies and Milkshops have been during the year regularly inspected and kept in good condition.

	Dairies	Cowsheds	Milkshops	Total
Number on Register	35	73	59	167
„ in good condition ...	35	58	59	152
„ in fair condition ...	0	9	0	9
„ in bad condition ...	0	6	0	6
„ closed	1	6	9	16
„ registered	8	31	3	42
„ visits during year ...	12	12	12	36

No cases of disease among the animals were reported during the year, and all orders prohibiting the movement of animals have been revoked.

From time to time the Board of Agriculture have issued various orders dealing with the importation of animals from foreign ports. On receipt of these orders all persons concerned were at once notified with a view of preventing their importation.

BAKEHOUSES.

During the year 63 Bakehouses have been from time to time inspected and kept clean.

I have the honour to remain,

Gentlemen,

Your obedient servant,

GEORGE T. GEATON.

